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Ventral hematocyst in a Bovine

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2 **Ventral Hematocyst in a Bovine.** A 4-year-old Hereford cow was admitted to Stange Memorial Clinic on March 31, 1953, with a history of fluid in the abdomen, ten gallons of which had been removed one week previous. The cow had calved 3–4 weeks earlier and nursed the calf until coming to the clinic. Appetite was reported as good.

The following day the cow was examined carefully with the outstanding symptom being an enlarged pear-shaped abdomen. Her general condition was good and she evidenced no sign of discomfort or distress. Both sides of the abdomen were apparently bulging with edema and peritoneal fluid, and the axilla and brisket were soft and infiltrated with fluid. Standing at the rear of the animal, one noted that the abdomen appeared asymmetrical in that one side was slightly more enlarged than the other. On palpation the ventral floor of the abdomen felt quite solid and firm, presumably due to the pressure of the internal fluids upon the abdominal musculature. The heart sounds were regular and weakened, but no bruits were heard. Temperature was elevated slightly above the normal range and the pulse was slightly accelerated with respiration normal.

The mucous membranes appeared anemic but not icteric. Blood and urine samples were taken to the clinic laboratory. The hemogram revealed a tendency toward a hypochromic anemia with 52.3 percent or 6.29 Gm. of hemoglobin, and 7,240,000 red blood cells. The white blood count was below normal with a slight neutrophilia. Laboratory examination of the urine showed no significant changes and the liver function test was normal. The feces was loose and a bit darker than normal.

The patient was taken to the stocks where rectal palpation revealed a normally involuting uterus, a left kidney with rounded posterior pole, and an empty bladder. It was reported in the case history that fluid could be felt in the peritoneal cavity by rectal palpation. Twelve gallons of sero-hemorrhagic fluid were drained from both sides of the animal via two one-fourth inch trochars and one one-half inch trochar. A sterile tube of the fluid, which had no urine smell, was taken to the bacteriology laboratory for culture. No growth was reported.

The following day the patient was admitted to post mortem for euthanasia with the owner's consent. When the ventral incision through the skin of the abdomen was made, a moderate amount of serosanguineous fluid seeped out. On necropsy, a large hematocyst having a thick connective tissue wall was found to be present in the subcutaneous tissue of the ventral abdominal wall. The hemorrhage originated from rupture of the mammary vein and subcutaneous abdominal veins. Very little fluid was observed in the peritoneal cavity. It is believed that the hematocyst had existed for several months as indicated by the amount of organization that had taken place.

Further discussion with the owner revealed that the etiological factor was trauma. He had witnessed the animal being repeatedly butted by other cows in the feed lot.

This case was interesting in that the condition had been mistaken for ascites and was not satisfactorily diagnosed by the majority of those men that had clinically observed the animal. This leaves one with the impression that even the most obvious appearing symptoms should be carefully studied before making any definite commitments or diagnosis. Some of the factors involved were the bilateral swelling of the abdomen and the drainage of fluid, believed to be from the peritoneal cavity. The trochars were apparently passed into a subcutaneous serocyst and did not penetrate the thick conective tissue wall of the hematocyst nor the abdominal muscles. A hemoconcentration of the blood was anticipated in lieu of the apparent continual loss of body fluids into the abdomen; thus the tendecy toward hypochromic anemia was not interpreted as suggestive of actual circulatory blood loss. The subcutaneous accumulation of fluid may be explained in part by the

inciting action of the hematocyst itself acting as an irritant upon the tissues.

Ted Cox, '54

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3 **Impaction of the Fore-Stomachs and Abomasum in a Cow.** On Jan. 2, 1953, a six-year-old Brown Swiss cow was admitted to Stange Memorial Clinic with a history of having been bloated for three days. A trocar and cannula had been inserted in the left paralumbar fossa in the field and the cannula was still in place when the patient entered the clinic.

After a thorough examination, a decision was made to perform a rumenotomy. The left paralumbar fossa was prepared for surgery and a routine rumenotomy performed. Approximately three to four bushels of ruminal and reticular contents were removed, roughly ninety percent of the material being whole shelled corn. The reticulum was searched for foreign bodies, but none was found. Two ounces of an antiferment (turcaprol) in two gallons of mineral oil was pumped into the rumen before closing the ruminal incision. Three million units of procaine penicillin in oil was administered intramuscularly.

On January 3, the cow ate ground feed and drank water. The patient had not had a bowl movement so two No. 10 capsules of powdered gentian, ginger and nux vomica (equal parts) and two anthraquinone cathartic (istizen) bolets were given orally. Five hundred cubic centimeters of 50 percent dextrose was given intravenously and three million units of procaine penicillin in oil administered intramuscularly.

The next day the animal was very depressed, still somewhat bloated, but passed a small amount of fecal material. Four quarts of mineral oil, two ounces of turcaprol and two No. 10 capsules of powdered gentian, ginger and nux vomica were given orally. Ten cubic centimeters of cascara sagrada extract (peristaltin) was given intravenously and repeated in one hour without effect. Again 3,000,000 units of procaine penicillin in oil was administered intramuscularly and 500 cc. of 50 percent dextrose given intravenously.

On January 5, the patient was very much depressed, and the eyes were sunken in their sockets. One-half grain of arecoline hydrobromide was given subcutaneously at 9:00 A.M. and when no bowel movement was noted at 9:45 A.M., another 0.5 gr. was administered. This was again repeated an hour later, but still no response was evoked. The animal died about two hours later.

At necropsy it was shown that the rumen and reticulum were partially filled, but the omasum and abomasum were impacted with shelled corn. This presumeably resulted in the atony and bloat. Widespread hemorrhages throughout the tissues varying from petechiae to ecchymoses were also found.

This case is an illustration of a common condition in which the fore-stomachs and abomasum cease to function. All therapy tried in this particular case was unsuccessful. It has been shown elsewhere that doses of arecoline hydrobromide up to 0.25 gr. stimulate ruminal movements but doses in excess of this inhibit them. It was felt that the high doses of arecoline hydrobromide used here were necessary to overcome the nervous and toxic threshold that were raised in this animal because of the nervous depression. In this case, as in most others, the cause of the condition was not determined.

John E. Smith, '54

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4 **Retention of a Reduced Coxofemoral Luxation by the Use of an Intramedullary Bone Pin.** The following two cases are described in order to illustrate a method devised by Dr. Durwood Baker for retaining a reduced luxation of the coxofemoral articulation by using an intramedulary bone pin when the opposite femur was fractured.

The first case, a two-year-old black cocker male, was presented to the Stange